

# MARKETING AUSTRALIAN AND BARRACK TECHNOLOGY OVERSEAS

by

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Our experience with marketing technology has been vast and from this presentation, you can judge whether we are presenting good criteria on which financial analysts can make some sort of estimate as to how a company is going to perform overseas.

It will help to understand a little about Barrack Technology. Essentially what we have is an ignition source or system. This is not a reference to spark plugs and distributors and such like. It is a valve or flow modulator that fits between a pre chamber and a main chamber in a stratified charge engine. This is a unique development. The stratified charge engine is not. Barrack Technology didn't dream it up or invent it or claim any of the advantages claimed for it. Our input has been to provide a means of mechanical separation between the time of the ignition in the pre chamber and the transfer of that ignition from the pre to the main chamber.

## FUEL ECONOMY

The benefits that flow from applying that technology to the stratified charge engine are really captured by the stratified charge engine itself. What we are doing will allow those benefits to become a reality.

The benefits that will arise from a properly developed stratified charge engine are outstanding fuel economy. In lay terms, put it in the order of a diesel type engine economy but still retaining petrol performance. A very important factor today in motor vehicles. It should have very low emissions. It is accepted that if a stratified charge engine can be run at extremely lean air to fuel ratios, all the legislatively controlled emissions will be reduced, particularly NO<sub>x</sub>, which is the one that seems to cause the most difficulty at the moment.

It has a multi fuel capability, which right now probably doesn't interest Barrack from a commercial point of view, in that it is inconceivable currently that you would drive up to a petrol pump or a barrel and put crude oil into your motor car when refined spirits are

available. However this engine will, in fact, run on a range of fuels from highly refined super grade petrol through to the Barrow Island crude oil that prototypes have run on.

## WHY OVERSEAS?

So, having provided that very brief synopsis — then why overseas? that goes back to when we started in October 1972, when we embarked on this program with Bob Lampard. We believed that he had something with significance to the world — not just Australia.

In 1976 we travelled to a number of countries and spoke to people in the automotive business. We received great encouragement from them and so I guess the belief that we should go overseas is not one that we developed in the latter stages of the project but one that we have held for a great period of time.

Unfortunately, Australia and Perth, are not viewed by the automotive business, or a number of other international businesses, as the centre of the universe. We had to accept that and plan accordingly.

What we are extremely good at in Western Australia, and something the automotive industry recognises widely, as do many others, is that Perth, Western Australia is the centre of innovation. There have been a number of significant pieces of technology particularly relating to the automotive industry and computer industry that have come out of Perth. It is my belief that we should be encouraging and fostering them to go overseas.

It really is unrealistic to think that we can do a heck of a lot of manufacturing and exporting from here. When you put things in boxes and shift them around the world you are getting involved in a high degree of cost, and you are also at the disposal of the shipping or air companies — and we have our problems in that regard. So we are supporters of innovation being exported rather than physical product.

## WHY THE U.S.?

Having decided to go overseas with our innovation why did we select the United States? Well I guess we considered three areas, the other two areas were Japan and Western Europe where the bulk of auto manufacturing takes place. Japan and Western Europe had particular problems, very simple problems, but particularly difficult problems in relation to things like language and culture. We felt that they didn't offer very much in that respect and would, in fact, be a hindrance to us. In addition, success in Western Germany would not assure us of success in the United States. Neither would success in Japan; whereas we believe that if we were successful in the United States that would flow onto the rest of the world because most automobile manufacturers throughout the world aspire to sell their automobiles in the United States. It is one of the largest single markets in the world and almost every manufacturer is represented or aspires to be represented there. Also, in the U.S. there exists a set of market conditions that are prevailing and are very fundamental and supportive of what we are doing.

They have the most stringent legislative controls in the world in relation to both emissions and fuel economies. They have these things called "CAFE" — corporate average fuel economy goals, that the U.S. manufacturers have to meet. This is really quite a difficult problem for the U.S. manufacturers to deal with because the Americans are going back to bigger cars and the government is trying to impose these economy restrictions on their broad range of vehicles. The more big cars Americans buy the more difficult it is for manufacturers to meet those goals.

The government did back off on Ford and General Motors last year, and did not impose financial penalties on those companies, but they have however said that they will not be prepared to do the same thing again. Car companies must adhere. Chrysler was the only manufacturer who actually met CAFE'S last year.

## THE STRATIFIED CHARGE ENGINE

We also had a situation where the United States automobile industry is heavily committed to the open chamber stratified charge engine. You have got the Ford proco and the General Motors disc engine both of which had substantial sums of money spent on them. That money has not been spent unwisely. It has been spent in the belief that this particular engine offers those advantages I spoke about before. Outstanding economy to get them over the CAFE problems, exceedingly low emissions to beat the

legislation concerning emissions and without incurring, it is thought, the cost of the catalytic converters and the other associated control equipment that goes with it.

They have problems with the open chamber stratified charge engine. Neither General Motors nor Ford have been able to make it run successfully over a broad speed and load range which is necessary for an automobile. That is because of two significant problems — both related. Those problems are lack of sufficiently high energy ignition to get the fuel to burn, and a lack of sufficiently high energy mixing within the main chamber to sustain that burn. That is because they are operating on very high air to fuel ratios and it is very difficult to burn the fuel in that area even though the advantages you get if you can do it are quite superb and significant.

At the S.A.E. Congress which has just finished last weekend in Detroit we are seeing for the first time some discussion at an academic and theoretic level on how they might solve this mixing and ignition problem. We believe we started on solving that problem in October 1972, and, based on what we heard in Detroit last weekend, we believe we have a thirteen year advantage on a number of people who are now starting to consider how they might solve that problem.

So, why would the U.S. people be so interested. Not only does it offer the advantages we spoke about with fuel economy and emission but it can be produced on conventional equipment and that is an extremely important aspect for an automobile manufacturer today — in that any engine he makes does not involve a high degree of capital investment.

The estimate for a brand new engine line is something like a thousand million dollars in the U.S. You had the situation here when General Motors opted for the Nissan engine for their new Commodore because they said they couldn't afford the \$300,000,000 to adapt their lines to produce such an engine in this country. I happen to think they made a very wise decision in selecting that engine for their cars. It would have been better if it had the Caru combustion on it, but that will come!

## CONVENTIONAL MARKET PLACE

It also offers another significant advantage in that it is a non-radical solution. When you look at the U.S. market you have to understand that you are dealing with one of the most conventional automobile buying markets in the world. They are not renowned for innovation. You only have to look at the styling of their cars, though when I was there in January, the Ford Taurus was being promoted heavily in the U.S. It is the

first European styling design released on the U.S. market by a major manufacturer. We would probably consider most of their cars horrendous. If you lifted the bonnet they are strictly conventional and that is what the American buyer loves so it is important that it be a non-radical solution.

One of the primary reasons we went there of course, is that our technology fits almost every one of those requirements. It fits the legislative controls they are currently under, and enhances the massive investment already made by the industry in the United States.

Finally, and probably the most single important reason why we went, was that the intelligence we required was present in the United States. That is, the engineering knowledge we needed to make our engine a reality, already existed in the United States. There are engineers who had a decade of experience working on open chamber stratified charge engines. So we felt to gather together the team we needed, the U.S. situation was the only one that we could really consider, with all the foregoing decisions having been considered.

Now having made that decision, and knowing I was talking with you today, I have thought about what we have to do to be successful in an overseas market. I believe you will find them useful as a measuring stick for analysing similar companies.

## SUCCESS OVERSEAS

The first thing, of course you must have if you are going into an overseas market is a commitment, and I mean that very seriously. You have to believe to be in the business; and that the piece of technology you have is an extremely valid and valuable piece of technology. That there already exists a market for it because if there doesn't exist a market then you are going to have to go out and generate one and that is very hard work. It can be done but must have the commitment to the technology to do it.

You must also have the commitment in terms of time, in terms of money, and in terms of pain to go and do it. Sitting on a aeroplane from here to Boston takes up 32 hours of your time each way and when you do it six times in about 7 or 8 months it starts to wear off slightly. But you have to believe that there is a damn good reason to be going, and that it is going to be fruitful and is going to result in overall success for the company.

It is expensive. The United States is an extremely expensive area to do business and don't let anybody tell you differently.

The type of people we wanted to attract to Barrack Technology were extremely highly qualified people, entrenched in very good secure careers and they had to be wrenched away. That cost a lot of money, but we were successful in doing it. Time is one of the biggest commitments you have to make. These things just don't happen — you have to put a lot of effort in. We are fortunate that Western Australia is thirteen hours ahead of Boston. It means that I can cruise home from the office at about half past six, have dinner and start work again at 8 p.m. because that is when the office in Boston opens which is 9 a.m. their time the same day. So we get two days work in one day here. When I am not doing that I commute to Boston!

So commitment I think is one thing, one necessary and essential measurement. The second thing you need, and very importantly is market research, which I will come to later, and I might put 'Research' in inverted commas. I am talking about how the market operates. Now whether you are selling automobiles or cars, or computers or refrigerators, knowing how many are sold is not going to help you one iota to sell one single unit that you have made — all you are going to know is how many were purchased and probably where from and maybe by whom, but it will not help you sell your product or your technology.

## KNOWING YOUR MARKET

You have to know how the market, *your market*, operates. We need to know how less than half a dozen companies operate, not the hundred million consumers around the world. We need to know how General Motors operate, we need to know how Ford and Chrysler, Nissan, Toyota, all of the major automobile producing companies in the world operate. We want to know, we need to know how they act, we need to know how they analyse new technology, we need to know how they capture new technology and we need to know how they make decisions about new technology. That is what I call market intelligence — not how many are sold.

In America, particularly, you run into the "wasn't-thought-of-here syndrome". You have got a whole bureaucracy of engineers in the car companies there who have this concept that "if it was any good we'd have thought of it", so you have got to be aware of that and you have got to know how to get around it. I don't honestly believe that we will sell our technology to an engineer. Our marketing strategy is not to do that. We will sit in the office of the Chairman or Vice Chairman of an automobile company and we will sell the technology to him. He will tell his engineers that he has

found this amazing piece of technology, and they will be more reluctant to say no perhaps than they might be to us because it wasn't thought of in-house. There is though, in the United States, a growing need by the automobile companies to become innovative and we are seeing more and more that they are looking outside their companies for that innovation.

A number of companies have put several very significant projects outside of their own bureaucracies to have the technology adapted and captured. And so that is a very real advantage for companies from overseas or in other parts of the United States who are not yet entrenched in the automobile industry.

So that is something that can work significantly to your advantage. One of the major corporations announced also last week in Detroit the setting up of a thirty or forty million dollar technology capturing system if you like, that wasn't what they called it, but that is effectively what it is. They are going to spend thirty or forty million in the next twelve months locating analysing and capturing new technology that they wouldn't otherwise find on their desks in a normal day and they claim to read everything that is put in front of them.

So you need to know who are the real decision makers. Who really makes the decision about innovation, is it the product planner, or the engineer or is it the Chairman. We think we know who it is, and we have spoken to a number of them.

Coming back to market research I think it is fair to say that I am sick and tired, as many of you must be, of seeing market research based on what I call the multiplication phenomena. You give a calculator to any educated ten year old Australian child and he will come up with similar numbers to what you see bandied around the place in Perth and many other parts of Australia. You start off with a nice round number of 100 million or whatever, you multiply it by 30 per cent and then however many dollars you want to put on that and then we publish it in papers and we call it market research. Well I am sure nobody around here will fall for that ever again. When I talk about market research I really mean market intelligence and I think we are all sick of seeing the other stuff — the multiplication phenomena.

### **BUILDING A SUCCESSFUL TEAM**

The third thing that I think you have to do to succeed overseas is to build a professional organisation and team of people. It is extremely important that that organisation and the team members within it are

recognised by both their peers and the industry as having a high degree of credibility and commitment to the organisation and to each other.

Now I could tell you a little about some of our people that we have attracted. These people that we brought together, not one person did we sit down and discuss salary with until we had a commitment that they believed in our technology. We took senior people — one guy 64 years of age — one year away from a very comfortable retirement situation in a major organisation with widespread contact with the automobile industry spanning 40 years, walked away from that company, and joined Barrack Technology on the strength of the information that we presented to him. Another gentleman left General Motors Research Division to join us. I remember meeting with him in Detroit, we had him sign a secrecy agreement and had then supplied to him a vast amount of information on our technology, we met with him one day for lunch and I asked him how he felt about it and he said that he was very enthusiastic and I asked him would he consider joining us. We still hadn't discussed money, but he said yes. I said why would you join us and he said there are two reasons I would join you. Firstly is that I believe that your technology is the most outstanding piece of technology most applicable to today's problems that I have seen, and the second reason is a very selfish one, I see it from a professional engineering point of view as an opportunity to have my name associated with a major contribution to the automobile industry.

We subsequently, a month or so later, secured the services of that young man. All of our people are very well paid, extremely well paid. All of our people have received shares in the company. It is our wish, and all our people except the office girl who has not been there long enough to qualify, that every other individual within our company has shares in the company and I mean a significant number of shares.

What we have put together and what is very important when you are building an organisation and a team in a company such as ours is that they be complementary. You don't want a team of people that sit around nodding and saying yes to each other because that really will not help you in a company such as ours. It won't help you in any company let me tell you, it is a cancer of an organisation, but it is certainly devastating in a company involved in the areas we are in. So they need to be complementary. We need to encourage conflict if you like, because conflict is healthy as long as it is based on mutual respect so there is plenty of room for conflict and disagreement, but the team must be complementary and the conflict must be based on mutual respect.

This professional organisation and team is built for one reason really and that is to bring you credibility. I have spent a long time in America talking to a vast number of people in the auto industry and credibility really is in my view the major issue in their eyes in the first few times that you meet with them. They want to know that they are dealing with professional people.

One other thing that you sometimes have to do, in fact often have to do, or almost always have to do is to outgrow the inventor. There can be nothing more painful for the inventor than seeing his organisation have to outgrow him. But if we wanted to become professional, and we wanted to install professional management, professional engineering, and a whole new approach to marketing this to companies that are extremely critical and analytical of these technologies, we had to survive the inventor. That is not to say that he finished up on the outer, he didn't but you see, the very elements that make some people very creative inventors is in fact what makes them such terrible managers. Most of them, not all, most of them, have no respect whatsoever for money or time, and they continually abuse time frames and plans. That is fine when you are dealing in developing a new idea. If you don't operate that way I would say very little creative effort would go on in this country or any other country unless an inventor is allowed to act that way. We found that to convert our organisation to a very professional organisation it was necessary for a change to take place, it was painful at the time but is now working extremely well. Bob Lampard is a senior director of our company, he is the Vice President, he plays a creative role in the problem solving that is necessary on a daily basis, but he is not the Managing Director of the company anymore and that was a hard period to go through, but a very necessary one and I think it is sometimes a good way to look at a company and see how long it will survive.

So you build a professional organisation, you staff it with very professional people, and you ensure that they and the organisation always act in a very professional way, and that is particularly so in the United States. The Americans are very particular about some things not others, but about some things, and that is one of them.

The other thing they are very particular about is writing business plans.

In fact, a little observation on the side, I think that 50 per cent of corporate America is dead from the neck

up, they sit on aeroplanes talking about business plans and I'd sit there wondering has anybody got off their backside and done anything about this business plan, to put it into force.

## LEADING THE FIELD

Fourth thing you have to do is be willing to be the leaders. You really have to go there with a strong desire to be a leader in your field. Not to go there and be another one of ten or a hundred companies in your field, you have to go there with a firm commitment that you are going to be the leader.

We are putting in a facility that I can guarantee to you is more advanced and has a more sophisticated data acquisition system than is going to be installed at the General Motors Saturn project, which is their very latest car project in the United States. That was put in for a reason. We want to be recognised as the leaders in our field. We also want to be recognised as people capable of producing data of the very highest standard because that is, in our field, also essential.

But we are not outspending General Motors, nobody gets to do that because it is literally impossible. There might be one or two people in Australia who can, maybe one, you all know who I am talking about I presume. You can't outspend them but I tell you what you can do, you can outsmart them.

We are a small creative flexible team of people and I believe that gives us an ability to outsmart a bureaucracy with a very slow decision making process, and a very strong influence from the accountants of which I am one. It gives you a distinct advantage being small and flexible, that is one of our greatest strengths, but more importantly than that our people are accountable too. We are small, we can't afford to act stupidly or irresponsible, we have shareholders, a lot of them know us intimately and we have an accountability to them to ensure that we act properly and don't waste their money. So whilst we might be putting in a system that is more advanced than General Motors I want the shareholders to know that we are not outspending them.

We have been dealing with a number of people, and we received a call one day from the Director of Research of the United States Army and we were invited to go to the Pentagon and meet with him because he believed that we had a leading piece of technology in the area of multi fuel engines. That first meeting has led to a number of subsequent meetings with him and with a contractor and that program is developing very soundly at the current time.

## STRATEGIC PLANNING

Fifth thing I think you need to do is to develop and hold to a sound strategy. You know you can develop all the plans you like but unless you are committed to holding on to them through thick and thin it is very easy to decide we ought to change this plan just because a whole bunch of people don't agree with it. And a lot of plans get changed because of that. We never change a plan unless we disagree with it, and we have often flown in the face of some so-called informed opinion with some success.

Now the way that we do it is we start off by doing very deep strategic planning. We recently held a meeting at a place called Bretton Woods, just north of Boston, we took every single employee except the office girl, who doesn't have any shares yet. We lock ourselves up for a period of days and we do some very serious strategic planning, but before we go we do a lot of work also as a group. We have every individual put forward a document quite freely and openly and honestly of what his personal aspirations are in relation to our organisation, of the direction that he thinks our organisation should travel, and how he feels he can contribute to that. They are then circulated amongst all of the members who attend that meeting. Finally when we have that meeting we bring in an independent arbitrator, to chair it.

We pay to have an independent person come into the organisation and what we end up with is an individual commitment to the corporate goal. Bear in mind that the corporation is a collection of individuals so a corporate goal is of no value at all unless you have the individual commitment to it.

There are many, many temptations in a technology company or a company working on advanced innovation, to get sidetracked. There would be a hundred times a day you could select a different path to follow so you have to be single-minded. You have to hold to the strategy. We have our people constantly ask themselves is this leading me towards or away from my goal and if the answer is 'no' or 'maybe', then you just simply don't do it without a great deal of consideration.

We have a marketing plan that we believe is well thought out. It has attracted a bit of comment both of a congratulatory basis and also of a critical basis. We don't cold canvas as a corporation. I have decided we will not and never will cold canvas an automobile company anywhere in the world. I believe, and you may think it is arrogant, that we have a piece of technology that is universally applicable, that fills a

definite need within the auto industry, a need that has been displayed by that auto industry, and we don't believe that we would serve ourselves or our shareholders one bit of good by going and knocking on somebody's door and saying we have this good idea we would like you to look at it. What we do is try and generate a 'discovery' mentality. We try to have our people give presentations of a very technical basis.

We participate in the S.A.E. Congress. Two of our people chaired sessions, one on the general industry and one specifically relating to stratified charge engines. Such is their recognition in the industry that they were invited to do that. We believe that in presenting our information in this way, and through people we have come into contact with, that there is a far greater chance of success, and I might tell you that we have had phone calls from almost every significant motor company in the United States and some in Japan and some in Korea as a result of following that strategy. Not one of those calls has been initiated by us. So we have held to our strategy despite the people who criticise it and we are more and more convinced that it is a successful strategy.

We also have a marketing strategy of confidentiality that has attracted some adverse criticism from both the broking community and the press because we simply refuse to name who we are dealing with.

We believe that we have a universal product. We also believe that we operate in one of the most competitive market areas in the world today and we believe that if we are seen to be too heavily involved or committed or in discussions with one particular company then particularly in the U.S. and in other parts, that would almost exclude us from talking to the other companies. So at this early stage we believe the policy of confidentiality is also a sound one and one which we will not change.

There comes a time of course when a contract is signed and an announcement has to be made, until that time we are not identifying other than talking in general terms of the nature of the industry or the defence contractor.

## INTEGRATION

The sixth thing I think you have to do in a overseas situation is look well beyond the organisation and the technology. We often ask ourselves what can we do to strengthen our organisation externally in the community we have chosen to be part of. We deliberately, each time I go there, go and meet, usually in New York, with the financial community. We have

had a number of meetings with different people and subsequent meetings sometimes with the same people, not once yet have we asked any of them to do anything for us or participate with us in any way whatsoever. But it is part of our strategy to keep the market there informed.

We have our people present technical papers — so we reach out in that way. We use that as an avenue to expand the people's awareness of what we are doing. We exercise a social conscience. That might simply mean giving \$25 to the local Boys Brigade or whatever. But be seen in the community to be doing something. You know in Boston for all intents and purposes we appear to be an American organisation. I am the only person who is not resident in the U.S. I spend six months of the year there instead of the whole year. Spend the other six months on aeroplanes going backwards and forwards!

In this looking beyond we also look for external opportunities. Because we recognise the fact that we appear to be an American organisation within America, because we have a vast array of contacts both financial and industrial in America, because at our technical presentations we have received a high level of enquiry of how you buy stock in this company. We have been to City Bank in New York and we have entered into an agreement with them, which is currently being drawn up by their lawyers and ours to issue American depository receipts in the United States. They should be in place by around April or May and it is our corporate goal to have a very significant percentage of our stock held in ADR's by the United States public.

It makes a lot of sense for us to do that simply because we have the appearance of being a United States company. It makes a lot of sense from a market point of view in Australia too, if you can imagine that 40 per cent of the publicly held capital ended up being held in the United States that means it literally disappears off the Australian market. But that is not the reason that we did it, we believe that it is important that the people in the country where we will sell our technology, have some interest and some equity in the situation.

## CONCLUSION

Barrack Technology has one of the biggest advantages, which is not confined to Barrack Technology, it is not confined to the Barrack House Group, it is something shared by a small number of Western Australian companies and it is one of the greatest attributes of a Western Australian company. Others do it as well — we don't claim to own it. *That is, that we don't know what we can't do;* and I think that in Barrack House, you have seen that in the wine business. Lots of people rang us up and told us you couldn't sell a bottle of wine for \$20, but we can sell them for \$30. Also, we went out and got technology, applying it to mine dumps that have been sitting there — we have production costs significantly below most other people. So there is a great advantage and not knowing what you can't do. But let me point out, that is different from not knowing what you are doing. I want to make that clear to you.

We are confident that as the months unfold, that analysts and investors will share the enthusiasm that we have for marketing Barrack or Australian technology overseas.